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NEWS	10	JAN 07	WPIDS, WPINDEX, and WPIX enhanced Japanese Patent Classification Data
NEWS	11	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS	12	FEB 02	GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS	13	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS	14	FEB 10	COMPENDEX reloaded and enhanced
NEWS	15	FEB 11	WTEXTILES reloaded and enhanced
NEWS	16	FEB 19	New patent-examiner citations in 300,000 CA/CAPLUS patent records provide insights into related prior art
NEWS	17	FEB 19	Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01
NEWS	18	FEB 23	Several formats for image display and print options discontinued in USPATFULL and USPAT2
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NEWS	20	FEB 23	TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS	21	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS	22	FEB 25	USGENE enhanced with patent family and legal status display data from INPADOCDB
NEWS	23	MAR 06	INPADOCDB and INPAFAMDB enhanced with new display formats
NEWS	24	MAR 11	EPFULL backfile enhanced with additional full-text applications and grants
NEWS	25	MAR 11	ESBIOBASE reloaded and enhanced
NEWS	26	MAR 20	CAS databases on STN enhanced with new super role for nanomaterial substances
NEWS	27	MAR 23	CA/CAPLUS enhanced with more than 250,000 patent equivalents from China

NEWS 28 MAR 30 IMSPATENTS reloaded and enhanced

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
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=> s trihydroxysilylpropyl sulfonic acid
      1 TRIHYDROXYSILYLPROPYL
      394954 SULFONIC
      11593355 ACID
      8370 ACIDS
      11599385 ACID
          (ACID OR ACIDS)
L1      0 TRIHYDROXYSILYLPROPYL SULFONIC ACID
          (TRIHYDROXYSILYLPROPYL(W) SULFONIC(W)ACID)
```

```

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    735438 SILYL
    4539068 PROPYL
      4 PROPYLS
    4539068 PROPYL
      (PROPYL OR PROPYLS)
    394954 SULFONIC
    11593355 ACID
      8370 ACIDS
    11599385 ACID
      (ACID OR ACIDS)
L2      0 TRIHYDROXY SILYL PROPYL SULFONIC ACID
      (TRIHIDROXY (W) SILYL (W) PROPYL (W) SULFONIC (W) ACID)

=> s trihydroxy silyl propyl phosphonic acid
    92184 TRIHYDROXY
    735438 SILYL
    4539068 PROPYL
      4 PROPYLS
    4539068 PROPYL
      (PROPYL OR PROPYLS)
    142602 PHOSPHONIC
    11593355 ACID
      8370 ACIDS
    11599385 ACID
      (ACID OR ACIDS)
L3      0 TRIHYDROXY SILYL PROPYL PHOSPHONIC ACID
      (TRIHIDROXY (W) SILYL (W) PROPYL (W) PHOSPHONIC (W) ACID)

=> s trihydroxy silyl perfluoro octyl sulfonic acid
    92184 TRIHYDROXY
    735438 SILYL
    7329 PERFLUORO
      1 PERFLUOROS
    7329 PERFLUORO
      (PERFLUORO OR PERFLUOROS)
    280402 OCTYL
    394954 SULFONIC
    11593355 ACID
      8370 ACIDS
    11599385 ACID
      (ACID OR ACIDS)
L4      0 TRIHYDROXY SILYL PERFLUORO OCTYL SULFONIC ACID
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=> file caplus
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                103.57      103.79

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FILE COVERS 1907 - 2 Apr 2009 VOL 150 ISS 14  
FILE LAST UPDATED: 1 Apr 2009 (20090401/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s us 20060166085/pn
L5          1 US 20060166085/PN
           (US20060166085/PN)
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=> d l all
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```
L5  ANSWER 1 OF 1 CAPLUS  COPYRIGHT 2009 ACS on STN
AN  2004:198217  CAPLUS
DN  140:220730
ED  Entered STN:  11 Mar 2004
TI  Method of fabrication of ion-conductive battery separator for lithium
    batteries.
IN  Hennige, Volker; Hying, Christian; Hoerpel, Gerhard
PA  Creavis Gesellschaft fuer Technologie und Innovation m.b.H., Germany
SO  Ger. Offen., 19 pp.
    CODEN: GWXXBX
DT  Patent
LA  German
IC  ICM  H01M002-14
    ICS  H01M010-38
CC  52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
    Section cross-reference(s): 38
FAN.CNT 1
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10240032	A1	20040311	DE 2002-10240032	20020827
CA 2496841	A1	20040311	CA 2003-2496841	20030721
WO 2004021477	A1	20040311	WO 2003-EP7933	20030721
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003250125	A1	20040319	AU 2003-250125	20030721
EP 1532701	A1	20050525	EP 2003-790805	20030721
EP 1532701	B1	20060104		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			

CN 1679185	A	20051005	CN 2003-820566	20030721
CN 100397681	C	20080625		
JP 2005536860	T	20051202	JP 2004-531810	20030721
AT 315277	T	20060215	AT 2003-790805	20030721
US 20060166085	A1	20060727	US 2004-519097	20041227 <--
IN 2004CN03105	A	20060217	IN 2004-CN3105	20041231
PRAI DE 2002-10240032	A	20020827		
WO 2003-EP7933	W	20030721		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10240032	ICM	H01M002-14
	ICS	H01M010-38
	IPCI	H01M0002-14 [ICM,7]; H01M0010-38 [ICS,7]; H01M0010-36 [ICS,7,C*]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
CA 2496841	IPCI	H01M0002-16 [ICM,7]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
WO 2004021477	IPCI	H01M0002-16 [ICM,7]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
AU 2003250125	IPCI	H01M0002-16 [ICM,7]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
EP 1532701	IPCI	H01M0002-16 [I,C]; H01M0002-16 [I,A]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
CN 1679185	IPCI	H01M0002-16 [I,C]; H01M0002-16 [I,A]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
	ECLA	H01M002/16B3; H01B001/12F; H01M002/16C1; H01M002/16D; H01M010/42M; T01M; T01M
JP 2005536860	IPCI	H01M0002-16 [ICM,7]; H01M0010-40 [ICS,7]; H01M0010-36 [ICS,7,C*]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
	FTERM	5H021/BB01; 5H021/BB12; 5H021/CC01; 5H021/CC03; 5H021/CC04; 5H021/EE21; 5H021/EE22; 5H021/HH03; 5H021/HH06; 5H029/AJ03; 5H029/AK03; 5H029/AL07; 5H029/AM03; 5H029/AM05; 5H029/AM07; 5H029/CJ02; 5H029/CJ22; 5H029/CJ23; 5H029/DJ04; 5H029/DJ15; 5H029/DJ16; 5H029/EJ03; 5H029/EJ05; 5H029/HJ04; 5H029/HJ14
AT 315277	IPCI	H01M0002-16 [ICS,7]
	IPCR	H01M0002-16 [I,C*]; H01M0002-16 [I,A]; H01M0002-14 [I,C*]; H01M0002-14 [I,A]; H01M0010-36 [I,C*]; H01M0010-38 [I,A]; H01M0010-40 [I,A]
US 20060166085	IPCI	H01M0004-00 [I,A]; H01M0002-14 [I,A]; B05D0005-12 [I,A]; B05D0003-12 [I,A]; B05D0001-02 [I,A]; B05D0001-18 [I,A]
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[I,C]; B05D0003-12 [I,A]; B05D0005-12 [I,C];  
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 [I,A]; H01M0004-00 [I,C]; H01M0010-36 [I,C\*];  
 H01M0010-38 [I,A]; H01M0010-40 [I,A]  
 NCL 429/128.000; 427/115.000; 427/355.000; 427/421.100;  
 427/430.100; 429/129.000  
 H01M0002-16 [ICM,7]

- IN 2004CN03105 IPCI
- AB The invention concerns separators for lithium batteries as well as a procedure for their production and use. The separator is based on a laminar, flexible substrate with a plurality of openings. The substrate has a porous, inorg., elec. insulating coating, which closes the openings in the substrate. The material of the substrate is selected from woven or nonwoven, elec. nonconductive polymer fibers and the inorg. elec. conductive coating contains metallic oxide particle. The separator has Li-ion conducting characteristics without the presence electrolytes. After loading with addnl. Li-ion conductive electrolytes, a clearly higher ionic conduction is observed than in the case of conventional combinations of lithium ion conductive separators and electrolyte. The separators according to invention are especially suitable for application in lithium heavy-duty batteries.
- ST lithium battery separator fabrication
- IT Phosphate glasses  
 RL: DEV (Device component use); USES (Uses)  
 (lithium phosphate zirconate; method of fabrication of ion-conductive battery separator for lithium batteries.)
- IT Secondary batteries  
 (lithium; method of fabrication of ion-conductive battery separator for lithium batteries.)
- IT Coating materials  
 Electric insulators  
 Secondary battery separators  
 (method of fabrication of ion-conductive battery separator for lithium batteries.)
- IT Polyesters, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (method of fabrication of ion-conductive battery separator for lithium batteries.)
- IT Sulfonic acids, uses  
 RL: DEV (Device component use); USES (Uses)  
 (salts, lithium salt; method of fabrication of ion-conductive battery separator for lithium batteries.)
- IT Synthetic polymeric fibers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (substrate; method of fabrication of ion-conductive battery separator for lithium batteries.)
- IT 78-10-4, Tetraethoxysilane 2031-67-6, Methyltriethoxysilane 2530-83-8, Dynasylan GLYMO 2768-02-7, Dynasylan Silfin  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
 (method of fabrication of ion-conductive battery separator for lithium batteries.)
- IT 96-48-0, γ-Butyrolactone 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 463-79-6D, Carbonic acid, Li salt 616-38-6, Dimethyl carbonate 4437-85-8, Butylene carbonate 7446-09-5, Sulfur dioxide, uses 7719-09-7, Thionyl chloride 7791-03-9, Lithium perchlorate 13598-36-2D, Phosphonic acid, Li salt 14283-07-9, Lithium tetrafluoroborate 21324-40-3, Lithium hexafluorophosphate 29935-35-1, Lithium hexafluoroarsenate 33454-82-9, Lithium triflate 56525-42-9, Methyl propyl carbonate, uses 90076-65-6 244761-29-3, Lithium bisoxalatoborate 663935-17-9 663935-18-0  
 RL: DEV (Device component use); USES (Uses)  
 (method of fabrication of ion-conductive battery separator for lithium

```

        batteries.)
IT   13765-95-2, Zirconium phosphate
      RL: MOA (Modifier or additive use); USES (Uses)
          (method of fabrication of ion-conductive battery separator for lithium
          batteries.)
IT   25038-59-9, Polyethylene terephthalate, uses
      RL: TEM (Technical or engineered material use); USES (Uses)
          (method of fabrication of ion-conductive battery separator for lithium
          batteries.)
IT   1314-23-4, Zirconia, uses    1344-28-1, Alumina, uses    7631-86-9, Silica,
      uses
      RL: TEM (Technical or engineered material use); USES (Uses)
          (particles, coating; method of fabrication of ion-conductive battery
          separator for lithium batteries.)

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NEWS 17 FEB 19 Increase the precision of your patent queries -- use
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and 2009 MeSH terms

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NEWS 21 FEB 23 Three million new patent records blast AEROSPACE into  
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NEWS 23 MAR 06 INPADOCDB and INPAFAMDB enhanced with new display  
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AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

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DICTIONARY FILE UPDATES: 31 MAR 2009 HIGHEST RN 1130556-28-3

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<http://www.cas.org/support/stngen/stdoc/properties.html>

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=> s bis(perfluoro methyl sulfonyl)amide
MISSING OPERATOR 'BIS(PERFLUORO'
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3871329 BIS
      2 BISES
3871329 BIS
      (BIS OR BISES)
7329 PERFLUORO
      1 PERFLUOROS
7329 PERFLUORO
      (PERFLUORO OR PERFLUOROS)
27646309 METHYL
      98 METHYLS
27646309 METHYL
      (METHYL OR METHYLS)
2819234 SULFONYL
      1 SULFONYLS
2819234 SULFONYL
      (SULFONYL OR SULFONYLS)
9430561 AMIDE
      1112 AMIDES
9430561 AMIDE
      (AMIDE OR AMIDES)
L1      0 BIS PERFLUORO METHYL SULFONYL AMIDE
      (BIS(W)PERFLUORO(W)METHYL(W)SULFONYL(W)AMIDE)
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=> s bisperfluoro methyl sulfonyl amide
      4 BISPERFLUORO
27646309 METHYL
      98 METHYLS
27646309 METHYL
      (METHYL OR METHYLS)
2819234 SULFONYL
      1 SULFONYLS
2819234 SULFONYL
      (SULFONYL OR SULFONYLS)
9430561 AMIDE
      1112 AMIDES
9430561 AMIDE
      (AMIDE OR AMIDES)
L2      0 BISPERFLUORO METHYL SULFONYL AMIDE
      (BISPERFLUORO(W)METHYL(W)SULFONYL(W)AMIDE)
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=> s bisperfluoromethyl sulfonyl amide
2819234 SULFONYL
      1 SULFONYLS
2819234 SULFONYL
      (SULFONYL OR SULFONYLS)
9430561 AMIDE
      1112 AMIDES
9430561 AMIDE
      (AMIDE OR AMIDES)
L3      0 BISPERFLUOROMETHYL SULFONYL AMIDE
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=> s bisperfluoromethyl sulfonyl
    2819234 SULFONYL
        1 SULFONYLS
    2819234 SULFONYL
        (SULFONYL OR SULFONYLS)
L4      0 BISPERFLUOROMETHYL SULFONYL
        (BISPERFLUOROMETHYL(W) SULFONYL)

=> s li2zr
L5      9 LI2ZR

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        (PHOSPHATE OR PHOSPHATES)
L6      4 L5 AND PHOSPHATE

=> s l5 and sulfonate
    166564 SULFONATE
        242 SULFONATES
    166564 SULFONATE
        (SULFONATE OR SULFONATES)
L7      0 L5 AND SULFONATE

=> s lithium and sulfonate
    118858 LITHIUM
    166564 SULFONATE
        242 SULFONATES
    166564 SULFONATE
        (SULFONATE OR SULFONATES)
L8      324 LITHIUM AND SULFONATE

=> s lithium zirconium sulfonate
    118858 LITHIUM
    114345 ZIRCONIUM
    166564 SULFONATE
        242 SULFONATES
    166564 SULFONATE
        (SULFONATE OR SULFONATES)
L9      0 LITHIUM ZIRCONIUM SULFONATE
        (LITHIUM(W) ZIRCONIUM(W) SULFONATE)

=> s lithium zirconium phosphate
    118858 LITHIUM
    114345 ZIRCONIUM
    289653 PHOSPHATE
        388 PHOSPHATES
    289653 PHOSPHATE
        (PHOSPHATE OR PHOSPHATES)
L10     102 LITHIUM ZIRCONIUM PHOSPHATE
        (LITHIUM(W) ZIRCONIUM(W) PHOSPHATE)

=>
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for CERAB, COMPUAB, ELCOM, and SOLIDSTATE  
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NEWS 13 FEB 06 Patent sequence location (PSL) data added to USGENE  
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STN patent clusters  
NEWS 22 FEB 25 USGENE enhanced with patent family and legal status  
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NEWS 23 MAR 06 INPADOCDB and INPAFAMDB enhanced with new display  
formats  
NEWS 24 MAR 11 EPFULL backfile enhanced with additional full-text  
applications and grants  
NEWS 25 MAR 11 ESBIOBASE reloaded and enhanced  
NEWS 26 MAR 20 CAS databases on STN enhanced with new super role  
for nanomaterial substances  
NEWS 27 MAR 23 CA/CAPLUS enhanced with more than 250,000 patent  
equivalents from China  
NEWS 28 MAR 30 IMSPATENTS reloaded and enhanced  
NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.  
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=> s lithium zirconium phosphonate sulfonate  
118881 LITHIUM  
114351 ZIRCONIUM  
166593 SULFONATE  
242 SULFONATES  
166593 SULFONATE  
(SULFONATE OR SULFONATES)  
L1 0 LITHIUM ZIRCONIUM PHOSPHONATE SULFONATE  
(LITHIUM(W) ZIRCONIUM(W) PHOSPHONATE (W) SULFONATE)

=> s lithium zirconium phosphate sulfonate  
118881 LITHIUM  
114351 ZIRCONIUM  
2 PHOSPHATE  
166593 SULFONATE  
242 SULFONATES  
166593 SULFONATE

```

                (SULFONATE OR SULFONATES)
L2              0 LITHIUM ZIRCONIUM PHOSPATE SULFONATE
                (LITHIUM(W) ZIRCONIUM(W) PHOSPATE(W) SULFONATE)

=> s lithium zirconium phosphate sulfonate
    118881 LITHIUM
    114351 ZIRCONIUM
    289667 PHOSPHATE
    388 PHOSPHATES
    289667 PHOSPHATE
        (PHOSPHATE OR PHOSPHATES)
    166593 SULFONATE
    242 SULFONATES
    166593 SULFONATE
        (SULFONATE OR SULFONATES)
L3              0 LITHIUM ZIRCONIUM PHOSPATE SULFONATE
                (LITHIUM(W) ZIRCONIUM(W) PHOSPATE(W) SULFONATE)

=> s lithium zirconium phosphonate sulfonate
    118881 LITHIUM
    114351 ZIRCONIUM
    23600 PHOSPHONATE
    78 PHOSPHONATES
    23600 PHOSPHONATE
        (PHOSPHONATE OR PHOSPHONATES)
    166593 SULFONATE
    242 SULFONATES
    166593 SULFONATE
        (SULFONATE OR SULFONATES)
L4              0 LITHIUM ZIRCONIUM PHOSPHONATE SULFONATE
                (LITHIUM(W) ZIRCONIUM(W) PHOSPHONATE(W) SULFONATE)

=> s lithium and zirconium and phosphonate and sulfonate
    118881 LITHIUM
    114351 ZIRCONIUM
    23600 PHOSPHONATE
    78 PHOSPHONATES
    23600 PHOSPHONATE
        (PHOSPHONATE OR PHOSPHONATES)
    166593 SULFONATE
    242 SULFONATES
    166593 SULFONATE
        (SULFONATE OR SULFONATES)
L5              0 LITHIUM AND ZIRCONIUM AND PHOSPHONATE AND SULFONATE

=> s lithium zirconium phophate
    118881 LITHIUM
    114351 ZIRCONIUM
    0 PHOPHATE
L6              0 LITHIUM ZIRCONIUM PHOPHATE
                (LITHIUM(W) ZIRCONIUM(W) PHOPHATE)

=> s lithium zirconium phosphate
    118881 LITHIUM
    114351 ZIRCONIUM
    289667 PHOSPHATE
    388 PHOSPHATES
    289667 PHOSPHATE
        (PHOSPHATE OR PHOSPHATES)
L7              102 LITHIUM ZIRCONIUM PHOSPHATE
                (LITHIUM(W) ZIRCONIUM(W) PHOSPHATE)

```

=> d 1

L7 ANSWER 1 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
RN 1101112-33-7 REGISTRY  
ED Entered STN: 05 Feb 2009  
CN Iron lithium zirconium phosphate (Fe0.9LiZr0.05(P04)) (CA INDEX  
NAME)  
MF Fe . Li . O4 P . Zr  
AF Fe0.9 Li O4 P Zr0.05  
CI TIS  
SR CA  
LC STN Files: CA, CAPLUS

Component	Ratio	Component Registry Number
O4P	1	14265-44-2
Zr	0.05	7440-67-7
Li	1	7439-93-2
Fe	0.9	7439-89-6

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 11 1-20 /cn

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'/Q'. The saved name for an answer set must end with '/A'. The saved  
name for an L# list must end with '/L'. SDI request names must end  
with '/S'. To see a list of all saved query, answer set,, and L# list  
names for this loginid, enter "DISPLAY SAVED" at an arrow  
prompt (=>). Enter "DISPLAY SAVED/S" to see a list of SDI request  
names. Enter "DISPLAY SAVED/B" to see a list of BATCH search  
requests.

=> d 11 1-20 cn

L1 HAS NO ANSWERS

L1 0 SEA FILE=REGISTRY ABB=ON PLU=ON LITHIUM ZIRCONIUM PHOSFONATE  
SULFONATE

=> d 17 1-20 cn

L7 ANSWER 1 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Iron lithium zirconium phosphate (Fe0.9LiZr0.05(P04)) (CA INDEX  
NAME)

L7 ANSWER 2 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Cobalt iron lithium zirconium phosphate (Co0.1Fe0.8LiZr0.05(P04))  
(CA INDEX NAME)

L7 ANSWER 3 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Iron lithium zirconium phosphate (Fe0.99Li1.02Zr0.01(P04)) (CA  
INDEX NAME)

L7 ANSWER 4 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Iron lithium zirconium phosphate (Fe0.7-1Li0-1.2Zr0-0.3(P04))  
(CA INDEX NAME)

L7 ANSWER 5 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Lithium zirconium phosphate (Li0.9-1.1Zr(P04)) (CA INDEX NAME)

L7 ANSWER 6 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Iron lithium zirconium phosphate (Fe0.99Li0.9Zr0.03(PO4)) (CA INDEX NAME)

L7 ANSWER 7 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Iron lithium zirconium phosphate (FeLi0.98Zr0.01(PO4)) (CA INDEX NAME)

L7 ANSWER 8 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Iron lithium zirconium phosphate (Fe0.99Li0.97Zr0.01(PO4)) (CA INDEX NAME)

L7 ANSWER 9 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Iron lithium zirconium phosphate (Fe0.99Li0.99Zr0.01(PO4)) (CA INDEX NAME)

L7 ANSWER 10 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Iron lithium zirconium phosphate (FeLi0.96Zr0.04(PO4)) (CA INDEX NAME)

L7 ANSWER 11 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Iron lithium zirconium phosphate (Fe0.7-1LiZr0-0.3(PO4)) (CA INDEX NAME)

L7 ANSWER 12 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lithium zirconium phosphate silicate (Li2.8Zr1.55-2(PO4)1.2-3(SiO4)0-1.8) (CA INDEX NAME)

L7 ANSWER 13 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lithium zirconium phosphate (Li2.8Zr1.55(PO4)3) (CA INDEX NAME)

L7 ANSWER 14 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lithium zirconium phosphate silicate (Li2.8Zr1.66(PO4)2.55(SiO4)0.45) (CA INDEX NAME)

L7 ANSWER 15 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lithium zirconium phosphate silicate (Li2.8Zr1.78(PO4)2.1(SiO4)0.9) (CA INDEX NAME)

L7 ANSWER 16 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lithium zirconium phosphate silicate (Li2.8Zr1.89(PO4)1.65(SiO4)1.35) (CA INDEX NAME)

L7 ANSWER 17 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lithium zirconium phosphate silicate (Li2.8Zr2(PO4)1.2(SiO4)1.8) (CA INDEX NAME)

L7 ANSWER 18 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lanthanum lithium zirconium phosphate (La0.3Li0.1Zr2(PO4)3) (CA INDEX NAME)

L7 ANSWER 19 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lanthanum lithium zirconium phosphate (La0.27Li0.2Zr2(PO4)3) (CA INDEX NAME)

L7 ANSWER 20 OF 102 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Lanthanum lithium zirconium phosphate (La0.23Li0.3Zr2(PO4)3) (CA INDEX NAME)

```

L8      1465 O3P
=> s o3p/lc
L9      0 O3P/LC

=> s li and zr and o3p and so3
      118129 LI
      25345 LIS
      143470 LI
          (LI OR LIS)
      123114 ZR
          2 ZRS
      123116 ZR
          (ZR OR ZRS)
      1465 O3P
      603 SO3
L10     0 LI AND ZR AND O3P AND SO3

=> s li and zr and o3p
      118129 LI
      25345 LIS
      143470 LI
          (LI OR LIS)
      123114 ZR
          2 ZRS
      123116 ZR
          (ZR OR ZRS)
      1465 O3P
L11     8 LI AND ZR AND O3P

=> d l11 1-8 cn

L11     ANSWER 1 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Lithium magnesium zirconium metaphosphate nitride oxide
      (Li1.1Mg0.8Zr0.1(PO3)N0.100.9)  (CA INDEX NAME)

L11     ANSWER 2 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Iron lithium magnesium zirconium metaphosphate nitride oxide
      (Fe0.9Li0.9Mg0.1Zr0.1(PO3)N0.1700.9)  (CA INDEX NAME)

L11     ANSWER 3 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Lithium zirconium fluoride metaphosphate oxide (Li3Zr0.1F0.2(PO3)O0.9)
      (CA INDEX NAME)

L11     ANSWER 4 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Lithium zirconium metaphosphate oxide (Li2.8Zr0.2(PO3)O0.9)  (CA INDEX
      NAME)

L11     ANSWER 5 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Lithium nickel zirconium metaphosphate oxide silicate
      (LiNi0.9Zr0.05(PO3)0.95O0.75(SiO4)0.1)  (CA INDEX NAME)

L11     ANSWER 6 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Cobalt lithium zirconium metaphosphate oxide silicate
      (Co0.9LiZr0.05(PO3)0.95O0.75(SiO4)0.1)  (CA INDEX NAME)

L11     ANSWER 7 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Lithium zirconium metaphosphate oxide (Li0.05Zr(PO3)2O1.02)  (CA INDEX
      NAME)

L11     ANSWER 8 OF 8  REGISTRY  COPYRIGHT 2009 ACS on STN
CN      Lithium zirconium metaphosphate oxide (LiZr2(PO3)3.102.95)  (CA INDEX

```



NAME)

=> s li and zr and so3

118129 LI  
25345 LIS  
143470 LI  
(LI OR LIS)  
123114 ZR  
2 ZRS  
123116 ZR  
(ZR OR ZRS)  
603 SO3

L12 0 LI AND ZR AND SO3

=> s so3

L13 603 SO3

=> s zirconium phosphonates

114351 ZIRCONIUM  
78 PHOSPHONATES  
L14 0 ZIRCONIUM PHOSPHONATES  
(ZIRCONIUM(W)PHOSPHONATES)

=> s zirconium phosphonate

114351 ZIRCONIUM  
23600 PHOSPHONATE  
78 PHOSPHONATES  
23600 PHOSPHONATE  
(PHOSPHONATE OR PHOSPHONATES)

L15 0 ZIRCONIUM PHOSPHONATE  
(ZIRCONIUM(W)PHOSPHONATE)

=> s zirconium and phosphonate

114351 ZIRCONIUM  
23600 PHOSPHONATE  
78 PHOSPHONATES  
23600 PHOSPHONATE  
(PHOSPHONATE OR PHOSPHONATES)

L16 75 ZIRCONIUM AND PHOSPHONATE

=> d l16 1-50 cn

L16 ANSWER 1 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Zirconium, bis(η<sup>5</sup>-2,4-cyclopentadien-1-yl)(diethyl  
P-[(1,2-η)-1-hexyn-1-yl]phosphonate)- (CA INDEX NAME)

L16 ANSWER 2 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Phosphonic acid, butyl-, zirconium(4+) salt (2:1) (9CI) (CA  
INDEX NAME)

OTHER NAMES:

CN Zirconium bis(butylphosphonate)

L16 ANSWER 3 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Zirconium hydroxide phosphonate (Zr(OH)2(HPO3)) (8CI) (CA INDEX  
NAME)

L16 ANSWER 4 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Zirconium, bis(η<sup>5</sup>-2,4-cyclopentadien-1-yl)(diethyl  
[(1,2-η)-1-heptynyl]phosphonate)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Bis(η<sup>5</sup>-cyclopentadienyl)(diethyl

(1-heptynyl)phosphonate)zirconium

L16 ANSWER 5 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-hexadecanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Hexadecanamine, compd. with zirconium(4+) phenylphosphonate  
(?:1:2), hydrate (9CI)

L16 ANSWER 6 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-pentadecanamine (2:1:2), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Pentadecanamine, compd. with zirconium(4+) phenylphosphonate  
(2:1:2), hydrate (9CI)

L16 ANSWER 7 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-tridecanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Tridecanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 8 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-undecanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Undecanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 9 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-decanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Decanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 10 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-nonanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Nonanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 11 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-heptanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Heptanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 12 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-pentanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Pentanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 13 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-butanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Butanamine, compd. with zirconium(4+) phenylphosphonate (? :1:2), hydrate (9CI)

L16 ANSWER 14 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with benzenamine (2:1:?) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN Benzenamine, compd. with zirconium(4+) phenylphosphonate (? :1:2) (9CI)

L16 ANSWER 15 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, compd. with zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), hydrate (2:2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), compd. with phenylphosphonic acid, hydrate (2:2:1) (9CI)

L16 ANSWER 16 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Glycine, N-benzoyl-, compd. with zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), hydrate (2:2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), compd. with N-benzoylglycine, hydrate (2:2:1) (9CI)

L16 ANSWER 17 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Benzoic acid, 4-nitro-, compd. with zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), hydrate (2:2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), compd. with 4-nitrobenzoic acid, hydrate (2:2:1) (9CI)

L16 ANSWER 18 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Benzenemethanol, compd. with zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), hydrate (4:2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), compd. with benzenemethanol, hydrate (2:4:1) (9CI)

L16 ANSWER 19 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Benzenemethanol, compd. with zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), hydrate (2:2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), compd. with benzenemethanol, hydrate (2:2:1) (9CI)

L16 ANSWER 20 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)1.8(HPO3)0.2), hydrate (2:1) (CA INDEX NAME)

L16 ANSWER 21 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with 1,10-decanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN 1,10-Decanediamine, compd. with zirconium(4+) phenylphosphonate (? :1:2), hydrate (9CI)

L16 ANSWER 22 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with 1,9-nonanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:  
 CN 1,9-Nonanediamine, compd. with zirconium(4+) phenylphosphonate (? :1:2), hydrate (9CI)

L16 ANSWER 23 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1,8-octanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,8-Octanediamine, compd. with zirconium(4+) phenylphosphonate  
 (?:1:2), hydrate (9CI)

L16 ANSWER 24 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1,6-hexanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,6-Hexanediamine, compd. with zirconium(4+) phenylphosphonate  
 (?:1:2), hydrate (9CI)

L16 ANSWER 25 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1,5-pentanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,5-Pentanediamine, compd. with zirconium(4+) phenylphosphonate  
 (?:1:2), hydrate (9CI)

L16 ANSWER 26 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1,4-butanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,4-Butanediamine, compd. with zirconium(4+) phenylphosphonate  
 (?:1:2), hydrate (9CI)

L16 ANSWER 27 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1,3-propanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,3-Propanediamine, compd. with zirconium(4+) phenylphosphonate  
 (?:1:2), hydrate (9CI)

L16 ANSWER 28 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1,2-ethanediamine (2:1:?), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1,2-Ethanediamine, compd. with zirconium(4+) phenylphosphonate  
 (?:1:2), hydrate (9CI)

L16 ANSWER 29 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1-tetradecanamine (2:1:2), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1-Tetradecanamine, compd. with zirconium(4+) phenylphosphonate  
 (2:1:2), hydrate (9CI)

L16 ANSWER 30 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1-dodecanamine (2:1:?), hydrate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1-Dodecanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
 hydrate (9CI)

L16 ANSWER 31 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
 1-decanamine (2:1:1) (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1-Decanamine, compd. with zirconium(4+) phenylphosphonate (1:1:2)

(9CI)

L16 ANSWER 32 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-octanamine (2:1:?) hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Octanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 33 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-heptanamine (2:1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Heptanamine, compd. with zirconium(4+) phenylphosphonate (1:1:2)  
(9CI)

L16 ANSWER 34 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-hexanamine (2:1:?) hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Hexanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 35 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-pentanamine (2:1:?) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Pentanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2)  
(9CI)

L16 ANSWER 36 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Phosphonic acid, phenyl-, zirconium(4+) salt, compd. with  
1-propanamine (2:1:?) hydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanamine, compd. with zirconium(4+) phenylphosphonate (?:1:2),  
hydrate (9CI)

L16 ANSWER 37 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Zirconium(1+), [ $\mu$ -[1,1'-bis[2-(phosphono- $\kappa$ O)ethyl]-4,4'-  
bipyridiniumato(4-)]dichloro[phosphato(3-)- $\kappa$ O]di-, chloride,  
trihydrate (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 4,4'-Bipyridinium, 1,1'-bis(2-phosphonoethyl)-, bis(inner salt)  
ion(2-), trichloro[phosphato(3-)]dizirconium(2+) (1:1), trihydrate

CN Zirconium(2+), trichloro[phosphato(3-)]di-,  
([4,4'-bipyridinium]-1,1'-diyl-di-2,1-ethanediy)bis[phosphonate] bis(inner  
salt) (1:1), trihydrate

L16 ANSWER 38 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Zirconium phosphate phosphonate (Zr(HPO<sub>4</sub>)1.8(HPO<sub>3</sub>)0.2), monohydrate  
(9CI) (CA INDEX NAME)

L16 ANSWER 39 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Zirconium phosphate phosphonate (Zr(HPO<sub>4</sub>)1.8(HPO<sub>3</sub>)0.2) (CA  
INDEX NAME)

L16 ANSWER 40 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN

CN Zirconium phosphate phosphonate (Zr(HPO<sub>4</sub>)1.72(HPO<sub>3</sub>)0.28), monohydrate  
(9CI) (CA INDEX NAME)

OTHER NAMES:

CN Zirconium phosphate phosphite (Zr(HPO<sub>4</sub>)1.72(HPO<sub>3</sub>)0.28) monohydrate

L16 ANSWER 41 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)1.72(HPO3)0.28) (CA INDEX NAME)

L16 ANSWER 42 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.85(HPO3)1.15), hydrate (2:1) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Zirconium phosphate phosphite (Zr(HPO4)0.85(HPO3)1.15) hemihydrate

L16 ANSWER 43 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.85(HPO3)1.15) (CA INDEX NAME)

L16 ANSWER 44 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.36(HPO3)1.64) (CA INDEX NAME)

L16 ANSWER 45 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Phosphonic acid, phenyl-, titanium(4+) zirconium(4+) salt, compd. with 3-(triethoxysilyl)-1-propanamine (8:1:3:?) (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 1-Propanamine, 3-(triethoxysilyl)-, compd. with titanium(4+) zirconium(4+) phenylphosphonate (?:1:3:8) (9CI)

L16 ANSWER 46 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.8(HPO3)1.2), hydrate (2:1) (CA INDEX NAME)

L16 ANSWER 47 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.8(HPO3)1.2) (CA INDEX NAME)

L16 ANSWER 48 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33), hydrate (2:1) (CA INDEX NAME)

L16 ANSWER 49 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3',5,5'-tetramethyl-, compd. with zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33) (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33), compd. with 3,3',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diamine (9CI)

L16 ANSWER 50 OF 75 REGISTRY COPYRIGHT 2009 ACS on STN  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33) (CA INDEX NAME)

=> s zirconium and phosphonate and sulfonate  
 114351 ZIRCONIUM  
 23600 PHOSPHONATE  
 78 PHOSPHONATES  
 23600 PHOSPHONATE  
 (PHOSPHONATE OR PHOSPHONATES)  
 166593 SULFONATE  
 242 SULFONATES  
 166593 SULFONATE  
 (SULFONATE OR SULFONATES)  
 L17 0 ZIRCONIUM AND PHOSPHONATE AND SULFONATE

```

=> s zirconium and phosphonate and lithium and sulfonate
    114351 ZIRCONIUM
    23600 PHOSPHONATE
    78 PHOSPHONATES
    23600 PHOSPHONATE
        (PHOSPHONATE OR PHOSPHONATES)
    118881 LITHIUM
    166593 SULFONATE
    242 SULFONATES
    166593 SULFONATE
        (SULFONATE OR SULFONATES)
L18      0 ZIRCONIUM AND PHOSPHONATE AND LITHIUM AND SULFONATE

=> s perfluoromethylsulfonyl
L19      17 PERFLUOROMETHYLSULFONYL

=> d 1-17 cn

L19      ANSWER 1 OF 17  REGISTRY  COPYRIGHT 2009 ACS on STN
CN       1H-Imidazolium, 1-ethyl-3-[6-[(1-oxo-2-propenyl)oxy]hexyl]-, salt with
    1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1),
    polymer with oxybis(2,1-ethanediyl-2,1-ethanediyl) di-2-propenoate and
    3,6,9,12-tetraoxatetradeca-1,13-diene (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN       1-Ethyl-3-[6-[(1-oxo-2-propenyl)oxy]hexyl]-1H-imidazolium
    bis(perfluoromethylsulfonyl)imide-tetra(ethylene glycol)
    diacrylate-tri(ethylene glycol) divinyl ether copolymer

L19      ANSWER 2 OF 17  REGISTRY  COPYRIGHT 2009 ACS on STN
CN       1H-Imidazolium, 1-ethyl-3-[6-[(1-oxo-2-propenyl)oxy]hexyl]-, salt with
    1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
    (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN       1-Ethyl-3-[6-[(1-oxo-2-propenyl)oxy]hexyl]-1H-imidazolium
    bis(perfluoromethylsulfonyl)imide
CN       3-(6-Acryloyloxyhexyl)-1-ethylimidazolium trifluoromethanesulfonylimide

L19      ANSWER 3 OF 17  REGISTRY  COPYRIGHT 2009 ACS on STN
CN       Methanesulfonamide, N,1,1,1-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-
    (CA INDEX NAME)
OTHER NAMES:
CN       N-Fluorobis(perfluoromethylsulfonyl)imide
CN       N-Fluorobis[(trifluoromethyl)sulfonyl]imide

L19      ANSWER 4 OF 17  REGISTRY  COPYRIGHT 2009 ACS on STN
CN       Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-,
    ion(1-)  (CA INDEX NAME)
OTHER NAMES:
CN       Bis(perfluoromethylsulfonyl)imide anion
CN       Bis(trifluoromethanesulfonyl)imide anion
CN       Bis(trifluoromethylsulfonyl)imide ion
CN       Bis(trifluoromethylsulfuryl)imide anion
CN       Bistriflylimide anion

L19      ANSWER 5 OF 17  REGISTRY  COPYRIGHT 2009 ACS on STN
CN       Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-,
    lithium salt (1:1)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN       Methanesulfonamide, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]-,
    lithium salt (9CI)
OTHER NAMES:

```

CN 1,1,1-Trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide lithium salt  
CN Bis[(trifluoromethyl)sulfonyl]imide lithium salt  
CN Fluorad HQ 115  
CN Fluorinert HQ 115  
CN Fluorinert HQ 115J  
CN HQ 115  
CN LiTFSI  
CN Lithiotrifluoromethanesulfonimide  
CN Lithium bis(perfluoromethylsulfonyl)imide  
CN Lithium bis(trifluoromethane sulfone)imide  
CN Lithium bis(trifluoromethane)sulfonimide  
CN Lithium bis(trifluoromethanesulfonyl)amide  
CN Lithium bis(trifluoromethanesulfonyl)imide  
CN Lithium bis(trifluoromethylsulfonyl)amide  
CN Lithium bis(trifluoromethylsulfonyl)imide  
CN Lithium bistriflamide  
CN Lithium triflimide  
CN MEK 50R  
CN N,N-Bis[(trifluoromethyl)sulfonyl]amine lithium salt

L19 ANSWER 6 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Phenol, 4-[2,2-bis[(trifluoromethyl)sulfonyl]ethenyl]-2-ethoxy- (CA INDEX NAME)

OTHER NAMES:

CN  $\beta$ , $\beta$ -Bis(perfluoromethylsulfonyl)-3-ethoxy-4-hydroxystyrene

L19 ANSWER 7 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Benzene, 1-[2,2-bis[(trifluoromethyl)sulfonyl]ethenyl]-4-nitro- (CA INDEX NAME)

OTHER NAMES:

CN  $\beta$ , $\beta$ -Bis(perfluoromethylsulfonyl)-p-nitrostyrene

L19 ANSWER 8 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Benzene, 1-[2,2-bis[(trifluoromethyl)sulfonyl]ethenyl]-2-chloro- (CA INDEX NAME)

OTHER NAMES:

CN  $\beta$ , $\beta$ -Bis(perfluoromethylsulfonyl)-o-chlorostyrene

L19 ANSWER 9 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Benzene, [3,3-bis[(trifluoromethyl)sulfonyl]-2-propen-1-yl]- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, [3,3-bis[(trifluoromethyl)sulfonyl]-2-propenyl]- (9CI)

OTHER NAMES:

CN 1,1-Bis(perfluoromethylsulfonyl)-3-phenylpropene

L19 ANSWER 10 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Benzene, [2,2-bis[(trifluoromethyl)sulfonyl]ethenyl]- (CA INDEX NAME)

OTHER NAMES:

CN  $\beta$ , $\beta$ -Bis(perfluoromethylsulfonyl)styrene  
CN 1-Phenyl-2,2-bis[(trifluoromethyl)sulfonyl]ethylene

L19 ANSWER 11 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Naphthalene, 1-[2,2-bis[(trifluoromethyl)sulfonyl]ethenyl]- (CA INDEX NAME)

OTHER NAMES:

CN 1,1-Bis(perfluoromethylsulfonyl)-2-(1-naphthyl)ethylene

L19 ANSWER 12 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Ethane, 1-bromo-1,1-bis[(trifluoromethyl)sulfonyl]- (CA INDEX NAME)



OTHER NAMES:

CN 1,1-Bis(perfluoromethylsulfonyl)-1-bromoethane

L19 ANSWER 13 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN

CN Methane, dichlorobis[(trifluoromethyl)sulfonyl]- (CA INDEX NAME)

OTHER NAMES:

CN 1,1-Bis(perfluoromethylsulfonyl)dichloromethane

L19 ANSWER 14 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN

CN Methane, chlorobis[(trifluoromethyl)sulfonyl]-, ion(1-), potassium (9CI)  
(CA INDEX NAME)

OTHER NAMES:

CN Bis(perfluoromethylsulfonyl)chloromethane potassium salt

L19 ANSWER 15 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN

CN Methane, bis[(trifluoromethyl)sulfonyl]-, ion(1-), potassium (8CI, 9CI)  
(CA INDEX NAME)

OTHER NAMES:

CN Bis(perfluoromethylsulfonyl)methane potassium salt

CN Bis[(trifluoromethyl)sulfonyl]methane potassium salt

CN Potassium bis(trifluoromethylsulfonyl)methide

L19 ANSWER 16 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN

CN Methane, bromobis[(trifluoromethyl)sulfonyl]-, ion(1-), potassium (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Bis(perfluoromethylsulfonyl)bromomethane potassium salt

L19 ANSWER 17 OF 17 REGISTRY COPYRIGHT 2009 ACS on STN

CN Methane, bis[(trifluoromethyl)sulfonyl]- (CA INDEX NAME)

OTHER NAMES:

CN Bis(perfluoromethylsulfonyl)methane

CN Bis(trifluoromethanesulfonyl)methane

CN Bis(trifluoromethylsulfonyl)methane

CN Methylene ditriflone

=> d his

(FILE 'HOME' ENTERED AT 15:52:23 ON 02 APR 2009)

FILE 'REGISTRY' ENTERED AT 15:52:34 ON 02 APR 2009

L1 0 S LITHIUM ZIRCONIUM PHOSPHONATE SULFONATE  
L2 0 S LITHIUM ZIRCONIUM PHOSPHATE SULFONATE  
L3 0 S LITHIUM ZIRCONIUM PHOSPHATE SULFONATE  
L4 0 S LITHIUM ZIRCONIUM PHOSPHONATE SULFONATE  
L5 0 S LITHIUM AND ZIRCONIUM AND PHOSPHONATE AND SULFONATE  
L6 0 S LITHIUM ZIRCONIUM PHOSPHATE  
L7 102 S LITHIUM ZIRCONIUM PHOSPHATE  
L8 1465 S O3P  
L9 0 S O3P/LC  
L10 0 S LI AND ZR AND O3P AND SO3  
L11 8 S LI AND ZR AND O3P  
L12 0 S LI AND ZR AND SO3  
L13 603 S SO3  
L14 0 S ZIRCONIUM PHOSPHONATES  
L15 0 S ZIRCONIUM PHOSPHONATE  
L16 75 S ZIRCONIUM AND PHOSPHONATE  
L17 0 S ZIRCONIUM AND PHOSPHONATE AND SULFONATE  
L18 0 S ZIRCONIUM AND PHOSPHONATE AND LITHIUM AND SULFONATE  
L19 17 S PERFLUOROMETHYLSULFONYL

```

=> s l19 and si
    477940 SI
    16367 SIS
    494145 SI
        (SI OR SIS)
L20      0 L19 AND SI

=> s propylene sulfonate
    18765 PROPYLENE
    1 PROPYLENES
    18765 PROPYLENE
        (PROPYLENE OR PROPYLENES)
    166593 SULFONATE
    242 SULFONATES
    166593 SULFONATE
        (SULFONATE OR SULFONATES)
L21      2 PROPYLENE SULFONATE
        (PROPYLENE(W) SULFONATE)

=> d l21 1-2 cn

L21 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2009 ACS on STN
CN 2-Propene-1-sulfonic acid, sodium salt (1:1), polymer with
    N,N-dimethyl-2-propenamide and 1-ethenyl-2-pyrrolidinone (CA INDEX NAME)
OTHER NAMES:
CN N,N-Dimethylacrylamide-sodium propylenesulfonate-N-vinylpyrrolidone
    copolymer

L21 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2009 ACS on STN
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-propenamide,
    2-propenenitrile and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI)
    (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Propenamide, polymer with methyl 2-methyl-2-propenoate, 2-propenenitrile
    and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI)
CN 2-Propene-1-sulfonic acid, 2-methyl-, sodium salt, polymer with methyl
    2-methyl-2-propenoate, 2-propenamide and 2-propenenitrile, graft (9CI)
CN 2-Propenenitrile, polymer with methyl 2-methyl-2-propenoate, 2-propenamide
    and sodium 2-methyl-2-propene-1-sulfonate, graft (9CI)
OTHER NAMES:
CN Acrylamide-acrylonitrile-methyl methacrylate-sodium methallylsulfonate
    graft copolymer
CN Acrylamide-acrylonitrile-methyl methacrylate-sodium methylpropylene
    sulfonate copolymer
CN Acrylamide-acrylonitrile-methyl methacrylate-sodium methylpropylsulfonate
    graft copolymer

=> s phosphate ethyl phosphonate
    289667 PHOSPHATE
    388 PHOSPHATES
    289667 PHOSPHATE
        (PHOSPHATE OR PHOSPHATES)
    12697621 ETHYL
    17 ETHYLS
    12697621 ETHYL
        (ETHYL OR ETHYLS)
    23600 PHOSPHONATE
    78 PHOSPHONATES
    23600 PHOSPHONATE
        (PHOSPHONATE OR PHOSPHONATES)
L22      0 PHOSPHATE ETHYL PHOSPHONATE

```

(PHOSPHATE(W)ETHYL(W)PHOSPHONATE)

```
=> s phosphate and ethyl and phosphonate
    289667 PHOSPHATE
    388 PHOSPHATES
    289667 PHOSPHATE
        (PHOSPHATE OR PHOSPHATES)
    12697621 ETHYL
    17 ETHYLS
    12697621 ETHYL
        (ETHYL OR ETHYLS)
    23600 PHOSPHONATE
    78 PHOSPHONATES
    23600 PHOSPHONATE
        (PHOSPHONATE OR PHOSPHONATES)
L23    155 PHOSPHATE AND ETHYL AND PHOSPHONATE

=> s l23 and zr
    123114 ZR
    2 ZRS
    123116 ZR
        (ZR OR ZRS)
L24    0 L23 AND ZR

=> s l23 and si
    477940 SI
    16367 SIS
    494145 SI
        (SI OR SIS)
L25    0 L23 AND SI

=> s phosphate and (ethyl or methyl or butyl or phenyl or tolyl or zyllyl) and
phosphonate
    289667 PHOSPHATE
    388 PHOSPHATES
    289667 PHOSPHATE
        (PHOSPHATE OR PHOSPHATES)
    12697621 ETHYL
    17 ETHYLS
    12697621 ETHYL
        (ETHYL OR ETHYLS)
    27672891 METHYL
    98 METHYLS
    27672891 METHYL
        (METHYL OR METHYLS)
    2165528 BUTYL
    9 BUTYLS
    2165528 BUTYL
        (BUTYL OR BUTYLS)
    22384487 PHENYL
    14 PHENYLS
    22384487 PHENYL
        (PHENYL OR PHENYLS)
    98516 TOLYL
    23600 PHOSPHONATE
    78 PHOSPHONATES
    23600 PHOSPHONATE
        (PHOSPHONATE OR PHOSPHONATES)
L26    285 PHOSPHATE AND (ETHYL OR METHYL OR BUTYL OR PHENYL OR TOLYL OR
ZYLYL) AND PHOSPHONATE

=> s l26 and (si or zr or silicon or zirconium or zirconate)
```

477940 SI  
16367 SIS  
494145 SI  
(SI OR SIS)  
123114 ZR  
2 ZRS  
123116 ZR  
(ZR OR ZRS)  
112157 SILICON  
114351 ZIRCONIUM  
4710 ZIRCONATE

L27 3 L26 AND (SI OR ZR OR SILICON OR ZIRCONIUM OR ZIRCONATE)

=> d 127 1-3 cn

L27 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2009 ACS on STN  
CN Phosphonic acid, phenyl-, compd. with zirconium phosphate phosphonate  
(Zr(HPO4)0.7(HPO3)1.3), hydrate (2:2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), compd. with  
phenylphosphonic acid, hydrate (2:2:1) (9CI)

L27 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2009 ACS on STN

CN [1,1'-Biphenyl]-4,4'-diamine, 3,3',5,5'-tetramethyl-, compd. with  
zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33) (9CI) (CA  
INDEX NAME)

OTHER CA INDEX NAMES:

CN Zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33), compd. with  
3,3',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diamine (9CI)

L27 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2009 ACS on STN

CN Octadecanoic acid, monoester with 1,2,3-propanetriol  
mono(2-hydroxypropanoate), mixt. with N-butylbenzenesulfonamide, dibutyl  
butylphosphonate, 2,2-dichloroethenyl dimethyl phosphate,  
2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] and 1,2,3-propanetriol diacetate  
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,2,3-Propanetriol, diacetate, mixt. contg. (9CI)

CN Benzenesulfonamide, N-butyl-, mixt. contg. (9CI)

CN Ethanol, 2,2'-[1,2-ethanediylbis(oxy)]bis-, mixt. contg. (9CI)

CN Phosphonic acid, butyl-, dibutyl ester, mixt. contg. (9CI)

CN Phosphoric acid, 2,2-dichloroethenyl dimethyl ester, mixt. contg.  
(9CI)

OTHER NAMES:

CN DDVP-benzenesulphonbutylamide-triethylene glycol-dibutyl  
butylphosphonate-diacetin-silicone-glycerol lacto stearate mixture

=> d 127 1-3

L27 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2009 ACS on STN

RN 218938-96-6 REGISTRY

ED Entered STN: 04 Feb 1999

CN Phosphonic acid, phenyl-, compd. with zirconium phosphate phosphonate  
(Zr(HPO4)0.7(HPO3)1.3), hydrate (2:2:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Zirconium phosphate phosphonate (Zr(HPO4)0.7(HPO3)1.3), compd. with  
phenylphosphonic acid, hydrate (2:2:1) (9CI)

MF C6 H7 O3 P . 1/2 H2 O . H O4 P . H O3 P . Zr

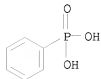
AF C6 H7 O3 P . H2 O6.7 P2 Zr . 1/2 H2 O

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 1571-33-1  
CMF C6 H7 O3 P



CM 2

CRN 120620-74-8  
CMF H O4 P . H O3 P . Zr  
CCI TIS

CM 3

CRN 15477-76-6  
CMF H O3 P



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 4

CRN 14066-19-4  
CMF H O4 P



CM 5

CRN 7440-67-7  
CMF Zr

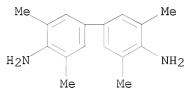
Zr

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

RN 144544-70-7 REGISTRY  
 ED Entered STN: 20 Nov 1992  
 CN [1,1'-Biphenyl]-4,4'-diamine, 3,3',5,5'-tetramethyl-, compd. with  
 zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33) (9CI) (CA  
 INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Zirconium phosphate phosphonate (Zr(HPO4)0.67(HPO3)1.33), compd. with  
 3,3',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diamine (9CI)  
 MF C16 H20 N2 . x H O4 P . x H O3 P . x Zr  
 AF C16 H20 N2 . x H2 O6.67 P2 Zr  
 SR CA  
 LC STN Files: CA, CAPLUS

CM 1

CRN 54827-17-7  
 CMF C16 H20 N2



CM 2

CRN 144544-69-4  
 CMF H O4 P . H O3 P . Zr  
 CCI TIS

CM 3

CRN 15477-76-6  
 CMF H O3 P



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 4

CRN 14066-19-4  
 CMF H O4 P



CM 5

CRN 7440-67-7  
CMF Zr

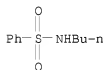
Zr

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L27 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2009 ACS on STN  
RN 8072-78-4 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Octadecanoic acid, monoester with 1,2,3-propanetriol  
mono(2-hydroxypropanoate), mixt. with N-butylbenzenesulfonamide, dibutyl  
butylphosphonate, 2,2-dichloroethenyl dimethyl phosphate,  
2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] and 1,2,3-propanetriol diacetate  
(9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 1,2,3-Propanetriol, diacetate, mixt. contg. (9CI)  
CN Benzenesulfonamide, N-butyl-, mixt. contg. (9CI)  
CN Ethanol, 2,2'-[1,2-ethanediylbis(oxy)]bis-, mixt. contg. (9CI)  
CN Phosphonic acid, butyl-, dibutyl ester, mixt. contg. (9CI)  
CN Phosphoric acid, 2,2-dichloroethenyl dimethyl ester, mixt. contg.  
(9CI)  
OTHER NAMES:  
CN DDVP-benzenesulphonbutylamide-triethylene glycol-dibutyl  
butylphosphonate-diacetin-silicone-glyceryl lacto stearate mixture  
MF C24 H46 O6 . C12 H27 O3 P . C10 H15 N O2 S . C7 H12 O5 . C6 H14 O4 . C4 H7  
C12 O4 P  
CI MXS  
LC STN Files: CA, CAPLUS

CM 1

CRN 3622-84-2  
CMF C10 H15 N O2 S



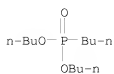
CM 2

CRN 112-27-6  
CMF C6 H14 O4



CM 3

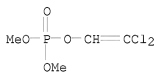
CRN 78-46-6  
CMF C12 H27 O3 P



CM 4

CRN 62-73-7

CMF C4 H7 Cl2 O4 P



CM 5

CRN 30234-20-9

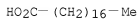
CMF C24 H46 O6

CCI IDS

CM 6

CRN 57-11-4

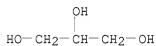
CMF C18 H36 O2



CM 7

CRN 56-81-5

CMF C3 H8 O3



CM 8

CRN 50-21-5

CMF C3 H6 O3





CM 9

CRN 25395-31-7

CMF C7 H12 O5

CCI IDS

CM 10

CRN 64-19-7

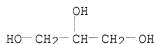
CMF C2 H4 O2



CM 11

CRN 56-81-5

CMF C3 H8 O3



- 1 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file zcaplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
646.75	646.97

FULL ESTIMATED COST

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FILE COVERS 1907 - 2 Apr 2009 VOL 150 ISS 14  
FILE LAST UPDATED: 1 Apr 2009 (20090401/ED)

ZCaplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 15:52:23 ON 02 APR 2009)

FILE 'REGISTRY' ENTERED AT 15:52:34 ON 02 APR 2009

L1 0 S LITHIUM ZIRCONIUM PHOSPHONATE SULFONATE  
L2 0 S LITHIUM ZIRCONIUM PHOSPHATE SULFONATE  
L3 0 S LITHIUM ZIRCONIUM PHOSPHATE SULFONATE  
L4 0 S LITHIUM ZIRCONIUM PHOSPHONATE SULFONATE  
L5 0 S LITHIUM AND ZIRCONIUM AND PHOSPHONATE AND SULFONATE  
L6 0 S LITHIUM ZIRCONIUM PHOSPHATE  
L7 102 S LITHIUM ZIRCONIUM PHOSPHATE  
L8 1465 S O3P  
L9 0 S O3P/LC  
L10 0 S LI AND ZR AND O3P AND SO3  
L11 8 S LI AND ZR AND O3P  
L12 0 S LI AND ZR AND SO3  
L13 603 S SO3  
L14 0 S ZIRCONIUM PHOSPHONATES  
L15 0 S ZIRCONIUM PHOSPHONATE  
L16 75 S ZIRCONIUM AND PHOSPHONATE  
L17 0 S ZIRCONIUM AND PHOSPHONATE AND SULFONATE  
L18 0 S ZIRCONIUM AND PHOSPHONATE AND LITHIUM AND SULFONATE  
L19 17 S PERFLUOROMETHYLSULFONYL  
L20 0 S L19 AND SI  
L21 2 S PROPYLENE SULFONATE  
L22 0 S PHOSPHATE ETHYL PHOSPHONATE  
L23 155 S PHOSPHATE AND ETHYL AND PHOSPHONATE  
L24 0 S L23 AND ZR  
L25 0 S L23 AND SI  
L26 285 S PHOSPHATE AND (ETHYL OR METHYL OR BUTYL OR PHENYL OR TOLYL OR  
L27 3 S L26 AND (SI OR ZR OR SILICON OR ZIRCONIUM OR ZIRCONATE)

FILE 'ZCAPLUS' ENTERED AT 16:19:50 ON 02 APR 2009

=> s l27

L28 4 L27

=> d l28 ti

L28 ANSWER 1 OF 4 ZCAPLUS COPYRIGHT 2009 ACS ON STN

TI A study on the synthesis and oxidation properties of chromic-mixed zirconium phenylphosphonate

=> d l28 1-4 ti pn

L28 ANSWER 1 OF 4 ZCAPLUS COPYRIGHT 2009 ACS ON STN

TI A study on the synthesis and oxidation properties of chromic-mixed zirconium phenylphosphonate

L28 ANSWER 2 OF 4 ZCAPLUS COPYRIGHT 2009 ACS ON STN

TI Thermoanalytical investigation of several layered zirconium salts and their derivatives part. II

L28 ANSWER 3 OF 4 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Study of the intercalation of tetramethylbenzidine in layered zirconium phosphates to obtain pillared materials

L28 ANSWER 4 OF 4 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Insecticidal compositions for diffusion by vaporization  
PATENT NO. KIND DATE

PI FR 1603822 19710716

=> file reg  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 5.52 652.49

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DICTIONARY FILE UPDATES: 1 APR 2009 HIGHEST RN 1131012-40-2

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predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=> s silicon and sulfonate  
112157 SILICON  
166593 SULFONATE  
242 SULFONATES  
166593 SULFONATE  
(SULFONATE OR SULFONATES)  
L29 36 SILICON AND SULFONATE  
  
=> s silicon and sulfonate and lithium  
112157 SILICON  
166593 SULFONATE  
242 SULFONATES  
166593 SULFONATE  
(SULFONATE OR SULFONATES)  
118881 LITHIUM  
L30 0 SILICON AND SULFONATE AND LITHIUM

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FULL ESTIMATED COST 27.23 679.72

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FILE COVERS 1907 - 2 Apr 2009 VOL 150 ISS 14  
FILE LAST UPDATED: 1 Apr 2009 (20090401/ED)

ZCaplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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=> s l29

L31 21 L29

=> d l31 1-32 ti pn

L31 ANSWER 1 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Complexation of tris(pentafluorophenyl)silanes with neutral Lewis bases

L31 ANSWER 2 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Positive chargeable composition for toner based on silicon complex and charging member using the same  
PATENT NO. KIND DATE

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PI JP 2007298966 A 20071115

L31 ANSWER 3 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Positive electrified charge control agent and positive electrified toner for developing electrostatic image  
PATENT NO. KIND DATE

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PI US 20070231726 A1 20071004  
KR 2007099439 A 20071009  
EP 1843214 A1 20071010  
JP 2007298965 A 20071115  
CN 101051193 A 20071010

L31 ANSWER 4 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Silica triflate as an efficient reagent for the solvent-free synthesis of coumarins

L31 ANSWER 5 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Synthesis and molecular and crystal structures of mono- and bis-chelate

hypercoordinate silicon compounds containing the C,O-chelating  
2,2-dimethyl-4-oxo-2,3-dihydro-1,3-oxazin-3-ylmethyl ligand

L31 ANSWER 6 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Assembling a Mixed Phthalocyanine-Porphyrin Array in Aqueous Media through  
Host-Guest Interactions

L31 ANSWER 7 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Self-doped conductive polymer-silicon hybrids from atom transfer radical  
graft copolymerization of sodium styrenesulfonate with polyaniline  
covalently tethered on the Si(100) surface

L31 ANSWER 8 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Functionalization of hydrogen-terminated silicon with polybetaine brushes  
via surface-initiated reversible addition-fragmentation chain-transfer  
(RAFT) polymerization

L31 ANSWER 9 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Photochemical studies of tetra-2,3-pyridinoporphyrazines

L31 ANSWER 10 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Method for preparing quinazolinyl-substituted  
[1,4]diazepino[6,7,1-h]indol-4-ones and analogs by cyclocondensation of  
2-(alkylideneamino)-N-(diazepinoindolyl)benzamides and analogs using weak  
Lewis acid catalysts

PATENT NO.	KIND	DATE
WO 2001002403	A1	20010111
FR 2795731	A1	20010105
FR 2795731	B1	20010907
CA 2376707	A1	20010111
BR 2000012532	A	20020402
EP 1196418	A1	20020417
EP 1196418	B1	20040616
HU 2002001635	A2	20020928
HU 2002001635	A3	20041228
JP 2003503498	T	20030128
EE 200100700	A	20030415
NZ 516287	A	20030630
AU 772966	B2	20040513
AT 269334	T	20040715
CN 1166668	C	20040915
NO 2001006271	A	20011228
IN 2001MN01623	A	20070601
BG 106264	A	20020830
HR 2001000952	A1	20030630
ZA 2002000114	A	20020829
MX 2002000257	A	20030820
US 6689881	B1	20040210

L31 ANSWER 11 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Influence of the solvent and of the counteranion on the structure of silyl  
cations stabilized by a terdentate aryldiamine ligand

L31 ANSWER 12 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI 2-(Alkoxyethyl)phenylsilicon compounds: the search for pentacoordination

L31 ANSWER 13 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Polymer-modified inorganic oxide colloidal particles

PATENT NO.	KIND	DATE
JP 05287213	A	19931102

JP 3122688

B2

20010109

L31 ANSWER 14 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Preparation of new monomeric, oligomeric, and polymeric silyl triflates

L31 ANSWER 15 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Grafted inorganic materials for composites  
PATENT NO. KIND DATE

PI	EP 212621	A2	19870304
	EP 212621	A3	19890125
	EP 212621	B1	19931013
	JP 62050313	A	19870305
	JP 05049693	B	19930727
	JP 62050314	A	19870305
	JP 05049694	B	19930727
	US 4783501	A	19881108
	US 4910251	A	19900320

L31 ANSWER 16 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Complexed compounds  
PATENT NO. KIND DATE

PI	DE 2739312	A1	19780309
	DE 2739312	C2	19900308
	CH 623353	A5	19810529
	NL 7709754	A	19780310
	CA 1103689	A1	19810623
	BE 858464	A1	19780307
	GB 1584049	A	19810204
	US 4404408	A	19830913
	JP 53034730	A	19780331
	JP 62022975	B	19870520
	FR 2364260	A1	19780407
	FR 2364260	B1	19800425

L31 ANSWER 17 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Silicon chelates  
PATENT NO. KIND DATE

PI	JP 51075027	A	19760629
	JP 55049056	B	19801210

L31 ANSWER 18 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Selective debenzoyloxycarbonylation in peptides with trifluoroacetic acid

L31 ANSWER 19 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Cooperative effects of functional groups in peptides. I. Aspartyl-serine derivatives

L31 ANSWER 20 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Preparation and decomposition of fluorosulfonates

L31 ANSWER 21 OF 21 ZCAPLUS COPYRIGHT 2009 ACS on STN  
TI Spectrophotometric research in chlorocopper complexes in acetone. I

=&gt;